

Comparisons of Job Characteristics

Focus Occupation: Geological and Petroleum Technicians (19-4041)

Associated Occupation: Industrial Engineering Technicians (17-3026)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 64

Focus Occupation: Geological and Petroleum Technicians (19-4041)
Associated Occupation: Industrial Engineering Technicians (17-3026)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Production and Processing	6.0	18.0	7.0	<<	Extensive education and/or training may be required
Engineering and Technology	5.7	16.7	12.0	<<	Extensive education and/or training may be required
Mathematics	9.2	15.6	14.8	0	Current knowledge level may be sufficient
Clerical	7.3	15.3	10.3	<<	Extensive education and/or training may be required
Design	5.2	13.4	7.3	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 69

Focus Occupation: Geological and Petroleum Technicians (19-4041)
Associated Occupation: Industrial Engineering Technicians (17-3026)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Monitoring	9.9	15.5	9.4	<<	Extensive development of skills in this area may be required
Complex Problem Solving	9.1	13.2	8.6	<<	Extensive development of skills in this area may be required
Mathematics	6.2	12.0	7.8	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	12.0	6.2	<<	Extensive development of skills in this area may be required
Systems Analysis	6.5	11.8	7.0	<<	Extensive development of skills in this area may be required

Technology Design	2.6	8.5	2.6	<<	Extensive development of skills in this area may be required
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The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 89			
Focus Occupation: Geological and Petroleum Technicians (19-4041) Associated Occupation: Industrial Engineering Technicians (17-3026)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Near Vision	11.1	13.3	11.1	<	Some improvement in abilities may be required
Number Facility	6.3	11.1	8.4	<<	Extensive improvement in abilities may be required
Selective Attention	8.7	11.0	8.2	<<	Extensive improvement in abilities may be required
Originality	7.6	10.7	7.3	<<	Extensive improvement in abilities may be required
Fluency of Ideas	7.6	10.4	6.8	<<	Extensive improvement in abilities may be required
Mathematical Reasoning	6.3	10.3	8.4	<	Some improvement in abilities may be required
Visualization	7.5	10.3	8.4	<	Some improvement in abilities may be required
Speed of Closure	5.9	8.1	5.1	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 76
Focus Occupation: Geological and Petroleum Technicians (19-4041) Associated Occupation: Industrial Engineering Technicians (17-3026)		
Work Activities	Exclusivity of Activity	
Analyze technical data, designs, or preliminary specifications	47	
Communicate technical information	4	
Compile numerical or statistical data	38	
Examine engineering documents for completeness or accuracy	62	
Explain complex mathematical information	30	
Perform safety inspections in industrial, manufacturing or repair setting	32	
Prepare safety reports	60	
Read technical drawings	7	
Record test results, test procedures, or inspection data	48	
Understand engineering data or reports	48	

Understand service or repair manuals	40
Understand technical operating, service or repair manuals	6
Use mathematical or statistical methods to identify or analyze problems	30
Use spreadsheet software	18

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 47

Focus Occupation: Geological and Petroleum Technicians (19-4041)
Associated Occupation: Industrial Engineering Technicians (17-3026)

Tools and Technologies	Exclusivity
Business function specific software	1
Cameras	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Indicating and recording instruments	2
Industry specific software	1
Length and thickness and distance measuring instruments	2
Viewing and observing instruments and accessories	4

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.